

MINERAL INDUSTRY SURVEYS

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Zinc, Monthly

ZINC IN JUNE 1996

Domestic mine production, expressed as recoverable zinc, declined to 49,800 metric tons in June, a 1.8% decline from the previous month's production but only slightly less than production in June 1995. Smelter production in June was 30,600 tons, up 2% from the previous month, and about 1% higher than in the year before. Monthly apparent consumption in June was 102,000 tons, down about 7% from May, but nearly 17% higher than in June 1995.

The *Platt's Metals Week* composite price for North American Special Grade zinc in May was 49.57 cents per pound, 1.8% lower than the previous month's price and more than 8% lower than in June 1995.

The premiums for zinc in the United States began inching upward. Premiums for future purchases at the end of June were around 3.5 to 4 cents per pound. High premiums were also reflected in the U.S. Mint tender of 3.16 to 4.5 cents per pound. Bullish sentiments were reflected in offers for the first quarter of 1997, with premiums approaching 5 cents per pound.¹

The Crandon Mining Company was to spend in excess of \$300 million to develop its deposit in Rhinelander, Wisconsin. The deposit contains 55 million tons of recoverable ore, consisting of 9.4% zinc and 0.4% copper with traces of lead and some precious metals. The company anticipated building a mill nearby to process 2 million tons of ore, producing 200-300,000 tons of zinc concentrate and about 20,000 tons of combined copper and lead concentrates annually.²

Anvil Range Mining Corp. Ltd. of Canada was to

start a \$6 million exploration program in the vicinity of its Faro Mine in June to add to existing reserves. Current production at the mine was 12,000 tons per day of mill feed, on target to produce 0.5 million tons of lead and zinc concentrate annually.³

At the recent conference of the International Lead and Zinc Study Group, the Chinese representatives displayed rare openness about the state of the Chinese zinc industry. China expects its annual zinc demand to reach 900,000 tons by 2000 and 1.2 million tons by 2010. It will be fueled mainly by increased use of galvanizing, which presently uses about 25% of zinc metal. The development of the Lanping deposit in Yunnan will make up for the declining output of existing mines. In order to reduce production cost and to initiate a methodical development of the zinc market, Huludao Zinc Plant and Shenyang Smelter formed Huludao Northeastern Nonferrous Metals Enterprise in 1995, and Shaoguan Smelter and Fankou Lead and Zinc Mine became Lingnam Lead and Zinc Group this year. The desired orderliness may be upset by the unpredictable growth of small, locally controlled mining and smelting operations that account for more than half of Chinese output of zinc concentrates.⁴

By the end of June, Mitsubishi Materials Corp. (MMC) was to be ready to commence closure of its Barajima zinc smelter and refinery near Akita in northwestern Tahaku, Japan. It was commissioned in 1953 and its annual capacity had risen from the initial 6,720 tons to 105,600 tons by 1995. Proximity to a port and its reliance on dollar-denominated imported concentrates were at first beneficial when

the yen's value began to rise against the dollar. But when the price of imported zinc metal declined to a level that, given the high labor cost, rivaled the production cost of Barajima refinery, its fortune began to decline. During the last months, production was running at 80% of capacity and MMC was losing about \$9.3 million per month.⁵

SIPA Resources of Australia and Finland's Outokumpu have discovered a deposit at the Kangaroo Caves, 7 kilometers south of a known 6.2-million-ton deposit at Sulphur Springs in Western Australia. The deposit at Kangaroo Caves contains an average 8.54% zinc and 0.51% of copper, starting at a depth of 485 meters. If the deposit measures at least 5.8 million tons, the project would shift to a feasibility stage.⁶

¹Metal Bulletin. North American zinc sees tighter market. No. 8090, June 24, 1996.

²Metal Bulletin. CMC to develop Wisconsin mine. No. 8084, June 3, 1996.

³Metal Bulletin. Anvil Range in further exploration. No. 8089, June 20, 1996.

⁴Metal Bulletin. Chinese lead-zinc comes into focus. No. 8087, June 13, 1996. Platt's Metals Week. China lead/zinc output will rise to meet demand. June 3, 1996.

⁵Metal Bulletin Monthly. June 1996.

⁶Metal Bulletin. SIPA, Outokumpu find significant zinc intersection. No. 8086, June 10, 1996.

TABLE 1
SALIENT ZINC STATISTICS 1/

(Metric tons)

	1995 p/			1996			
	Jan.-Jun.	June	Jan.-Dec.	April	May	June	Jan.-June
Production:							
Mine, recoverable zinc	302,000 r/	50,000	601,000	45,500 r/	50,700 r/	49,800	297,000
Smelter, slab zinc	187,000 r/	30,300 r/	363,000	29,800 r/	30,000	30,600	181,000
Oxide, (gross weight)	64,800	10,700 r/	130,000	11,400	11,600 r/	11,600	67,900
Consumption:							
Slab zinc, reported	340,000	58,000 r/	638,000	49,700	51,700 r/	49,800	304,000
Ores e/ 2/	1,200	200	2,400	200	200	200	1,200
Zinc-base scrap e/ 2/	60,000	10,000	120,000	10,000	10,000	10,000	60,000
Copper-base scrap e/ 2/	66,000	11,000	132,000	11,000	11,000	11,000	66,000
Aluminum-and magnesium-base scrap e/ 2/	420	70	840	70	70	70	420
Total e/	468,000 r/	79,300 r/	893,000	71,000	72,900 r/	71,100	431,000
Apparent consumption, metal 3/	664,000 r/	87,400 r/	1,240,000	101,000 r/	110,000 r/	102,000	587,000
Stocks of slab zinc, end of period:							
Producer 4/	XX	9,210 r/	XX	7,930 r/	7,010 r/	6,690	XX
Consumer 5/	XX	43,900	XX	44,100	42,300 r/	41,200	XX
Merchant	XX	7,390	XX	4,600	3,050	1,950	XX
Total	XX	60,500 r/	XX	56,700 r/	52,300 r/	49,800	XX
Imports for consumption:							
Slab zinc	469,000	58,800	856,000	72,200	74,100	NA	331,000 6/
Oxide	22,200	4,370	49,100	4,540	5,290	NA	25,000 6/
Ore and concentrate	8,710	966	10,300	12	13	NA	977 6/
Exports:							
Slab zinc	2,320	285	3,080	206	281	NA	540 6/
Waste and scrap (zinc content)	29,500	5,260	55,900	5,770	3,990	NA	22,700 6/
Ore and concentrate (zinc content)	42,000	12,700	424,000	8,580	3,080	NA	22,500 6/
Oxide	3,150	502	7,090	507	461	NA	2,810 6/
Price:							
Platt's Metals Week North American Special High Grade, average, cents per pound	55.76	54.01	55.83	50.61	50.50	49.57	50.53

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Recoverable zinc content.

3/ Smelter production + imports - exports + beginning stocks - ending stocks.

4/ Includes stocks held at smelters and elsewhere by producers, as reported by ABMS, plus estimated additional data for smelters not reporting to ABMS.

5/ In addition to stocks reported by consumers on a monthly basis, about 10,000 tons was estimated to be held by companies reporting on an annual basis only.

6/ Includes data through May only. June data not available at time of publication.

TABLE 2
MINE PRODUCTION OF RECOVERABLE ZINC IN THE UNITED STATES 1/

(Metric tons)

State	1995 p/			1996			
	Jan. - June	June	Jan. - Dec.	April r/	May r/	June	Jan. - June
Missouri	25,000	4,140	47,000	W	W	W	W
Other States 2/	277,000 r/	45,900	554,000	45,500	50,700	49,800	297,000
Total	302,000 r/	50,000	601,000	45,500	50,700	49,800	297,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other States."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes Alaska, Colorado, Idaho, Illinois, Montana, New York, Oregon, Tennessee, and State indicated by "W."

TABLE 3
ESTIMATED TOTAL PRODUCTION, SHIPMENTS, AND STOCKS OF SLAB ZINC 1/ AND ZINC OXIDE 2/, BY MONTH 3/

(Metric tons)

Month	Stocks at beginning of month		Production		Shipments		Stocks at end of month 4/	
	Slab Zinc	r/ Zinc Oxide	Slab Zinc	Zinc Oxide	Slab Zinc	Zinc Oxide	Slab Zinc	r/ Zinc Oxide
1995: p/								
Jan.-June	XX	XX	187,000	64,800	189,000	67,700	XX	XX
June	9,150	6,620	30,300	10,700	31,200	10,800	8,290	6,510
July	8,290	6,510	29,900	9,690	30,200	9,410	8,030	6,790
August	8,030	6,790	29,400	10,700	30,300	11,000	7,190	6,430
September	7,190	6,430	29,200	11,700	29,700	11,100	6,700	6,980
October	6,650	6,980	29,200	11,200	29,600	11,300	6,240	6,800
November	6,240	6,800	28,000	11,100	28,900	11,300	5,340	6,620
December	5,340	6,620	30,000	10,900	29,200	10,500	6,170	6,990
Total	XX	XX	363,000	130,000	368,000	132,000	XX	XX
1996:								
January	6,170	6,990	31,300	10,700	29,400 r/	12,900	8,030	4,760
February	8,030	4,760	29,400	10,400	29,800 r/	12,000	7,660	3,100
March	7,660	3,100	30,400	12,200	31,100 r/	11,500	6,900	3,740
April	6,900	3,750	29,800 r/	11,400	29,400 r/	11,600	7,330	3,530
May	7,330	3,530	30,000	11,600 r/	31,100 r/	11,800 r/	6,250	3,390 r/
June	6,250	3,390	30,600	11,600	31,100	11,200	5,760	3,800
Jan.-June	XX	XX	181,000	67,900	182,000	71,100	XX	XX

p/ Preliminary. r/ Revised. XX Not applicable.

1/ ABMS reported data, plus additional reported and estimated data for smelters not reporting to ABMS.

2/ Excludes impure zinc oxide produced from other processes.

3/ Data are rounded to three significant digits; may not add to totals shown.

4/ In addition to stocks held at smelters, reported by ABMS, 933 tons of zinc was estimated to be held elsewhere in June 1996.

Sources: ABMS and U.S. Geological Survey.

TABLE 4
ESTIMATED DISTRIBUTION 1/ OF ZINC OXIDE SHIPMENTS BY INDUSTRY 2/ 3/

(Metric tons)

Industry	1995 p/			1996			
	June	r/	Jan.-June	April	May	June	Jan.-June
Agriculture	W		W	W	W	W	W
Ceramics	224		1,540	550	620	562	3,150
Chemicals	2,510		15,400	2,640	2,660	2,410	15,600
Paints	405		2,410	424	403	379	2,570
Photocopying	W		W	W	W	W	W
Rubber	7,100		42,600	7,410	7,570	7,380	46,500
Other	533		3,470	545	522	497	3,270
Total	10,800		65,400	11,600	11,800	11,200	71,100

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Distribution of U.S. producers only. Imports excluded because distribution by industry cannot be distinguished.

2/ May include in-house consumption.

3/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 5
APPARENT CONSUMPTION OF SLAB ZINC ACCORDING TO INDUSTRY USE AND PRODUCT 1/

(Metric tons)

Industry and product	1995 p/			1996			
	June r/	Jan.-June r/	Jan.-Dec.	April r/	May r/	June	Jan.-June
Galvanizing:							
Sheet and strip	32,900	253,000	490,000	41,700	44,800	41,500	242,000
Other	11,000	89,900	168,000	13,900	15,200	14,100	79,300
Total	43,900	343,000	658,000	55,600	60,000	55,600	322,000
Brass and bronze	10,000	91,100	165,000	13,500	15,200	13,600	78,300
Zinc-base alloy	16,800	144,000	250,000	17,200	18,900	17,800	105,000
Other uses 2/	16,700	85,900	166,000	14,700	15,900	15,000	86,900
Total apparent consumption	87,400	664,000	1,240,000	101,000	110,000	102,000	592,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes zinc used in making zinc dust, wet batteries, desilvering lead, powder, alloys, anodes, chemicals, castings, light metal alloys, zinc oxide, and miscellaneous uses not elsewhere specified.

TABLE 6
AVERAGE MONTHLY ZINC PRICES

Month	North American Special High Grade cents/lb.	LME cash		Sterling exchange rate dollars/£
		cents/lb.	£/M.T.	
1995:				
June	54.01	45.80	633.07	1.594814
July	52.44	46.57	643.67	1.595160
August	51.23	46.01	647.45	1.566796
September	50.05	44.73	632.61	1.558970
October	49.68	44.41	620.52	1.577929
November	52.02	46.75	659.65	1.562476
December	50.87	46.18	660.89	1.540505
Year average	55.83	46.82	656.59	1.572016
1996:				
January	50.59	46.22	666.59	1.528771
February	50.69	46.98	674.37	1.535960
March	51.24	48.26	696.72	1.527062
April	50.61	47.42	689.57	1.516041
May	50.50	46.98	683.57	1.515236
June	49.57	45.75	654.20	1.541590

Source: Platt's Metals Week.

TABLE 7
U.S. EXPORTS OF ZINC 1/

Material	1995		1996			
	Quantity (metric tons)	Value (thousands)	May		Jan.-May 2/	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Slab zinc	3,080	\$4,340	281	\$298	540	\$662
Ore and concentrate (zinc content)	424,000	201,000	3,080	1,620	22,500	10,800
Waste and scrap (zinc content)	55,900	36,100	3,990	2,740	22,700	14,100
Powders , flakes, and dust (zinc content)	8,840	15,800	592	1,230	5,250	10,300
Oxide (gross weight)	7,090	9,110	461	618	2,810	3,810
Chloride	1,690	1,250	41	47	460	385
Sulfate	4,210	2,260	503	281	2,350	1,310
Compounds, other	1,690	4,350	165	434	910	2,600

1/ Data are rounded to three significant digits.

2/ June data not available at time of publication.

Source: Bureau of the Census.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF ZINC 1/

Material	1995		1996			
	Quantity (metric tons)	Value (thousands)	May		Jan.-May 2/	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Slab zinc	856,000	\$903,000	74,100	\$79,600	331,000	\$353,000
Ore and concentrate (zinc content)	10,300	4,380	13	7	977	447
Waste and scrap (gross weight)	42,300	19,700	2,850	985	13,800	5,680
Powders, flakes, and dust (gross weight)	11,700	20,400	843	1,380	3,990	6,780
Oxide (gross weight)	49,100	54,200	5,290	5,340	25,000	25,200
Chloride	2,450	2,370	209	204	987	869
Sulfate	5,400	3,820	286	211	1,890	1,350
Compounds, other	1,850	2,490	171	208	585	544
Dross, ashes, and fume (zinc content)	10,900	8,260	1,220	971	6,460	4,590

1/ Data are rounded to three significant digits.

2/ June data not available at time of publication.

Source: Bureau of the Census.

TABLE 9
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY 1/

(Metric tons)

Material and country	General imports			Imports for consumption		
	1995	1996		1995	1996	
		May	Jan.-May 2/		May	Jan.-May 2/
Ore and concentrate: (zinc content)						
Mexico	7,030	13	977	7,030	13	977
Peru	5,540	56	857	3,310	--	--
Other	463	--	161	15	--	--
Total	13,000	70	2,000	10,300	13	977
Blocks, pigs, or slab:						
Australia	15,400	3,330	6,970	18,200	3,330	7,350
Brazil	52,900	3,730	15,100	67,800	3,730	15,100
Canada	468,000	48,300	224,000	469,000	48,300	224,000
Finland	13,500	--	--	13,500	--	--
Mexico	99,200	8,110	39,200	99,200	8,110	39,200
Peru	21,500	3,640	13,500	21,500	3,640	13,500
Russia	12,800	--	2,600	12,800	--	2,600
Spain	109,000	11,000	20,600	98,000	7,000	24,600
Other	55,300	--	4,190	53,700	--	4,190
Total	848,000	78,100	327,000	856,000	74,100	331,000
Dross, ashes, & fume (content)	10,900	1,220	6,460	10,900	1,220	6,460
Grand total	872,000	79,400	335,000	877,000	75,300	338,000
Other (gross weight):						
Waste and scrap	42,300	2,850	13,800	42,300	2,850	13,800
Sheets	332	1,010	2,880	332	1,010	2,880
Dust, powder, flakes	11,700	843	3,990	11,700	843	3,990

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ June data not available at time of publication.

Source: Bureau of the Census.

TABLE 10
U.S. IMPORTS FOR CONSUMPTION OF ZINC OXIDE, BY COUNTRY 1/

(Metric tons)

Country	1995	1996	
		May	Jan.-May 2/
Canada	24,800	2,350	11,700
China	3,040	1,020	2,030
Mexico	16,600	1,470	9,170
Other	4,640	447	2,080
Total	49,100	5,290	25,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ June data not available at time of publication.

Source: Bureau of the Census.